

Mass and Related Quantities, The Netherlands, NMi-VSL (Nederlands Meetinstituut - Van Swinden Laboratorium)

Calibration or Measurement Service			Measurand Level or Range			Measurement Conditions/Independent Variable		Expanded Uncertainty						
Class	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage Factor	Level of Confidence	Is the expanded uncertainty a relative one?	Comments	NMI Service Identifier
Mass	Mass standards	Comparison in air	1	100	mg			2	µg	2	95%	No	Uncertainty scales with measurand level. The volume of the mass standards is known.	
Mass	Mass standards	Comparison in air	0.1	1	g			2 to 10	µg	2	95%	No	Uncertainty scales with measurand level. The volume of the mass standards is known.	
Mass	Mass standards	Comparison in air	1	10	g			10 to 20	µg	2	95%	No	Uncertainty scales with measurand level. The volume of the mass standards is known.	
Mass	Mass standards	Comparison in air	10	100	g			20 to 25	µg	2	95%	No	Uncertainty scales with measurand level. The volume of the mass standards is known.	
Mass	Mass standards	Comparison in air	0.1	1	kg			25 to 100	µg	2	95%	No	Uncertainty scales with measurand level. The volume of the mass standards is known.	
Mass	Mass standards	Comparison in air	1	10	kg			0.1 to 5	mg	2	95%	No	Uncertainty scales with measurand level. The volume of the mass standards is known.	
Mass	Mass standards	Comparison in air	10	50	kg			5 to 50	mg	2	95%	No	Uncertainty scales with measurand level. The volume of the mass standards is known.	
Absolute pressure	Pressure gauge	Gas medium	5.0E+03	3.5E+05	Pa			(0.2 + 3E-05p), p pressure in Pa	Pa	2	95%	No	Uncertainty values range from 3.5E-01 Pa to 1.1E+01 Pa	
Gauge pressure	Pressure balance	Gas medium	5.0E+03	5.0E+05	Pa			(0.5 + 3E-05p), p pressure in Pa	Pa	2	95%	No	Uncertainty values range from 6.5E-01 Pa to 1.6E+01 Pa	

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Gauge pressure	Pressure balance	Gas medium	5.0E+05	2.0E+07	Pa			$(1 + 4\text{E}-05p)$, p pressure in Pa	Pa	2	95%	No	Uncertainty values range from 2.1E+01 Pa to 8.0E+02 Pa	
Gauge pressure	Pressure balance	Oil medium	1.0E+06	8.0E+07	Pa			$5\text{E}-05p$, p pressure in Pa	Pa	2	95%	No	Uncertainty values range from 5.0E+01 Pa to 4.0E+03 Pa	
Gauge pressure	Pressure balance	Oil medium	8.0E+07	5.0E+08	Pa			$1\text{E}-04p$, p pressure in Pa	Pa	2	95%	No	Uncertainty values range from 8.0E+03 Pa to 5.0E+04 Pa	
Force: tension and compression	Force measuring device	Deadweight	10	5500	N			0.01	%	2	95%	Yes		
Force: tension and compression	Force measuring device	Deadweight	2.5	25	kN			0.01	%	2	95%	Yes		
Force: tension and compression	Force measuring device	Lever amplification	25	250	kN			0.01	%	2	95%	Yes		
Force: compression	Force measuring device	Reference force transducer	0.01	5	MN			0.04	%	2	95%	Yes		
Torque	Torque measuring device		3.2	32	kNm	Mode	clockwise, anticlockwise	1.0E-03		2	95%	Yes		
Torque	Torque measuring device		8	400	kNm	Mode	clockwise, anticlockwise	2.5E-03		2	95%	Yes		

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Class	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage Factor	Level of Confidence	Is the expanded uncertainty a relative one?	Comments	NMI Service Identifier
Kinematic viscosity	Newtonian liquids	Reference liquid	0.6	0.6	mm ² /s	Temperature	60 °C to 20 °C	0.3	%	2	95%	Yes	The uncertainty of the viscosity of the water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Reference liquid	1	2	mm ² /s	Temperature	60 °C to 20 °C	0.1	%	2	95%	Yes	The uncertainty of the viscosity of the water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Reference liquid	2	3	mm ² /s	Temperature	60 °C to 20 °C	0.15	%	2	95%	Yes	The uncertainty of the viscosity of the water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Reference liquid	3	10	mm ² /s	Temperature	60 °C to 20 °C	0.2	%	2	95%	Yes	The uncertainty of the viscosity of the water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Reference liquid	10	60	mm ² /s	Temperature	60 °C to 20 °C	0.25	%	2	95%	Yes	The uncertainty of the viscosity of the water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Reference liquid	60	270	mm ² /s	Temperature	60 °C to 20 °C	0.3	%	2	95%	Yes	The uncertainty of the viscosity of the water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Reference liquid	270	1300	mm ² /s	Temperature	60 °C to 20 °C	0.35	%	2	95%	Yes	The uncertainty of the viscosity of the water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Reference liquid	1300	3600	mm ² /s	Temperature	60 °C to 20 °C	0.4	%	2	95%	Yes	The uncertainty of the viscosity of the water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Reference liquid	3600	10000	mm ² /s	Temperature	60 °C to 20 °C	0.45	%	2	95%	Yes	The uncertainty of the viscosity of the water (ISO/TR 3666 (1998), 0.17%) is not taken into account	

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Class	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage Factor	Level of Confidence	Is the expanded uncertainty a relative one?	Comments	NMI Service Identifier
Kinematic viscosity	Newtonian liquids	Reference liquid	10000	80000	mm ² /s	Temperature	60 °C to 20 °C	0.5	%	2	95%	Yes	The uncertainty of the viscosity of the water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Reference liquid	0.4	0.4	mPa s	Temperature	60 °C to 20 °C	0.3	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Reference liquid	1	2	mPa s	Temperature	60 °C to 20 °C	0.1	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Reference liquid	2	3	mPa s	Temperature	60 °C to 20 °C	0.15	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Reference liquid	3	8	mPa s	Temperature	60 °C to 20 °C	0.2	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Reference liquid	8	55	mPa s	Temperature	60 °C to 20 °C	0.25	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Reference liquid	55	240	mPa s	Temperature	60 °C to 20 °C	0.3	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Reference liquid	240	1130	mPa s	Temperature	60 °C to 20 °C	0.35	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Reference liquid	1130	3160	mPa s	Temperature	60 °C to 20 °C	0.4	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Reference liquid	3160	9500	mPa s	Temperature	60 °C to 20 °C	0.45	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	

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Class	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage Factor	Level of Confidence	Is the expanded uncertainty a relative one?	Comments	NMI Service Identifier
Dynamic viscosity	Newtonian liquids	Reference liquid	9500	72000	mPa s	Temperature	60 °C to 20 °C	0.5	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Viscosity measurement	0.6	0.6	mm ² /s	Temperature	60 °C to 20 °C	0.3	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Viscosity measurement	1	2	mm ² /s	Temperature	20 °C to 60 °C	(0.001012 ² + (0.0171Uv) ²) ^{1/2} , viscosity temperature coefficient Uv in 1/K	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Viscosity measurement	2	3	mm ² /s	Temperature	20 °C to 60 °C	0.15	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Viscosity measurement	3	10	mm ² /s	Temperature	20 °C to 60 °C	0.2	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Viscosity measurement	10	60	mm ² /s	Temperature	20 °C to 60 °C	0.25	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Viscosity measurement	60	270	mm ² /s	Temperature	20 °C to 60 °C	0.3	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Viscosity measurement	270	1300	mm ² /s	Temperature	20 °C to 60 °C	0.35	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Viscosity measurement	1300	3600	mm ² /s	Temperature	20 °C to 60 °C	0.4	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	

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Kinematic viscosity	Newtonian liquids	Viscosity measurement	3600	10000	mm ² /s	Temperature	20 °C to 60 °C	0.45	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Kinematic viscosity	Newtonian liquids	Viscosity measurement	10000	80000	mm ² /s	Temperature	20 °C to 60 °C	0.5	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Viscosity measurement	0.4	0.4	mPa s	Temperature	20 °C to 60 °C	0.3	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Viscosity measurement	1	2	mPa s	Temperature	20 °C to 60 °C	(0.001012 ² + (0.0171U _v) ²) ^{1/2} , viscosity temperature coefficient U _v in 1/K	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Viscosity measurement	2	3	mPa s	Temperature	20 °C to 60 °C	0.15	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Viscosity measurement	3	8	mPa s	Temperature	20 °C to 60 °C	0.2	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Viscosity measurement	8	55	mPa s	Temperature	20 °C to 60 °C	0.25	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Viscosity measurement	55	240	mPa s	Temperature	20 °C to 60 °C	0.3	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Viscosity measurement	240	1130	mPa s	Temperature	20 °C to 60 °C	0.35	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	

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Dynamic viscosity	Newtonian liquids	Viscosity measurement	1130	3160	mPa s	Temperature	20 °C to 60 °C	0.4	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Viscosity measurement	3160	9500	mPa s	Temperature	20 °C to 60 °C	0.45	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Dynamic viscosity	Newtonian liquids	Viscosity measurement	9500	72000	mPa s	Temperature	20 °C to 60 °C	0.5	%	2	95%	Yes	The uncertainty of the viscosity of water (ISO/TR 3666 (1998), 0.17%) is not taken into account	
Gas volume flow	Massflow-, laminarflow- and leak-meters, capillaries	Gas volume displacement	1E-07	2E-05	m³/h	Gas	various gases	0.4	%	2	95%	Yes	"Micro-flow", conversion to kg/h possible on request	NE01
						Pressure	100 kPa							
						Pipe size	various tubing							
Gas volume flow	Variable area-, wetgas-, LFE-, massflow-, soapfilmmeters, piston provers	Direct or indirect calibration of volume per time	2E-05	3.5	m³/h	Gas	various gases	0.20 to 0.45	%	2	95%	Yes	"Low-flow", conversion to kg/h possible on request	NE02
						Pressure	1 MPa							
						Pipe size	various tubing							
Gas volume flow	Turbine-, rotary-, thermal-, wetgas-, mass flowmeters	Gas displacement per time	15E-03	65	m³/h	Gas	various gases	0.08	%	2	95%	Yes	"Bell prover 1", conversion to kg/h possible on request	NE03
						Pressure	100 kPa							
						Pipe size	DN 10 - DN 50							

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Gas volume flow	Turbine-, rotary-, thermal-, mass flowmeters	Gas displacement per time	0.1	400	m ³ /h	Gas	various gases	0.10	%	2	95%	Yes	"Bell prover 3", conversion to kg/h possible on request	NE04
						Pressure	100 kPa							
						Pipe size	DN 10 - DN 100							
Gas volume flow	Turbine-, rotary-, US-, vortexmeters and differential producers	Master meter , pulse- or analogue output of DuT	20	12000	m ³ /h	Gas	air	0.20	%	2	95%	Yes	"Large test-bench", conversion to kg/h possible on request	NE05
						Pressure	100 kPa							
						Pipe size	DN 80 - DN 600							
Gas volume flow	Rotary-, turbine-, ultrasonic-, vortex-, Coriolis meters and differential producers	Master meter, pulse- or analogue output of DuT	45	36000	m ³ (n)/h	Gas	natural gas	0.21	%	2	95%	Yes	"Groningen", conversion to kg/h possible on request	NE06
						Pressure	0.9 MPa to 1.5 MPa							
						Pipe size	2" to 24" ANSI 150, 300, 600							
Gas volume flow	Rotary-, turbine-, ultrasonic-, vortex-, Coriolis meters and differential producers	Master meter, pulse- or analogue output of DuT	45	36000	m ³ (n)/h	Gas	natural gas	0.18	%	2	95%	Yes	"Groningen", conversion to kg/h possible on request	NE06
						Pressure	1.6 MPa to 4.0 MPa							
						Pipe size	2" to 24" ANSI 150, 300, 600							

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Class	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage Factor	Level of Confidence	Is the expanded uncertainty a relative one?	Comments	NMI Service Identifier
Gas volume flow	Rotary-, turbine-, ultrasonic-, vortex-, Coriolis meters and differential producers	Master meter, pulse- or analogue output of DuT	45	80000	m ³ (n)/h	Gas	natural gas	0.21	%	2	95%	Yes	"Utrecht", conversion to kg/h possible on request	NE07
						Pressure	0.9 MPa							
						Pipe size	2" to 24" ANSI 150, 300, 600							
Gas volume flow	Rotary-, turbine-, ultrasonic-, vortex-, Coriolis meters and differential producers	Master meter, pulse- or analogue output of DuT	45	130000	m ³ (n)/h	Gas	natural gas	0.21	%	2	95%	Yes	"Bergum", conversion to kg/h possible on request	NE08
						Flowrate	> 100 m ³ (n)/h							
						Pressure	0.9 MPa to 2 MPa							
						Pipe size	2" to 24" ANSI 150, 300, 600							
Gas volume flow	Rotary-, turbine-, ultrasonic-, vortex-, Coriolis meters and differential producers	Master meter, pulse- or analogue output of DuT	45	130000	m ³ (n)/h	Gas	natural gas	0.18	%	2	95%	Yes	"Bergum", conversion to kg/h possible on request	NE08
						Flowrate	> 100 m ³ (n)/h							
						Pressure	2 MPa to 5 MPa							
						Pipe size	2" to 24" ANSI 150, 300, 600							

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Class	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage Factor	Level of Confidence	Is the expanded uncertainty a relative one?	Comments	NMI Service Identifier
Gas volume flow	Rotary-, turbine-, ultrasonic-, vortex-, Coriolis meters and differential producers	Master meter, pulse- or analogue output of DuT	45	130000	m ³ (n)/h	Gas	natural gas	0.30	%	2	95%	Yes	"Bergum", conversion to kg/h possible on request	NE08
						Flowrate	< 100 m ³ (n)/h							
						Pressure	0.9 MPa to 51 MPa							
						Pipe size	2" to 24" ANSI 150, 300, 600							
Gas volume flow	Rotary-, turbine-, ultrasonic-, vortex-, Coriolis meters and differential producers	Master meter, pulse- or analogue output of DuT	6000	2.4E+06	m ³ (n)/h	Gas	natural gas	0.20	%	2	95%	Yes	"Westerbork", conversion to kg/h possible on request	NE09
						Flowrate	> 48.000 m3(n)/h							
						Pressure	6 MPa							
						Pipe size	8" to 36" ANSI 600							
Gas volume flow	Rotary-, turbine-, ultrasonic-, vortex-, Coriolis meters and differential producers	Master meter, pulse- or analogue output of DuT	6000	2.4E+06	m ³ (n)/h	Gas	natural gas	0.39	%	2	95%	Yes	"Westerbork", conversion to kg/h possible on request	NE09
						Flowrate	< 48.000 m3(n)/h							
						Pressure	6 MPa							
						Pipe size	8" to 36" ANSI 600							

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Air velocity	Prantl and (S-) Pitot tube, mechanical- and thermal anemometer	Windtunnel	0.1	50	m/s	Gas	air	$[(3.2/v) - 2.2]$, v velocity in m/s and <1 m/s	%	2	95%	Yes		NE10
						Pressure	100 kPa							
						Velocity	< 1 m/s							
						Tunnel diameter	600 mm, 500 mm, 400 mm, 200 mm							
Air velocity	Prantl and (S-) Pitot tube, mechanical- and thermal anemometer	Windtunnel	0.1	50	m/s	Gas	air	1	%	2	95%	Yes		NE10
						Pressure	100 kPa							
						Velocity	> 1 m/s							
						Tunnel diameter	600 mm, 500 mm, 400 mm, 200 mm							
Liquid volume flow	Turbine-, EMF-, vortex- and positive displacement meter	Gyroscopic balance / master meter	0.001	150	m³/h	Liquid	water	0.05	%	2	95%	Yes	6" facility	NE11
						Flowrate	< 0.12 m³/h							
						Pressure	0.4 MPa							
						Pipe size	up to and including 150 mm							
Liquid volume flow	Turbine-, EMF-, vortex- and positive displacement meter	Gyroscopic balance / master meter	0.001	150	m³/h	Liquid	water	0.02	%	2	95%	Yes	6" facility	NE11
						Flowrate	> 0.12 m³/h							
						Pressure	0.4 MPa							

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					Pipe size	up to and including 150 mm								
Liquid mass flow	Coriolis meters, differential producers	Gyroscopic balance / master meter	1	150E+03	kg/h	Liquid	water	0.05	%	2	95%	Yes	6" facility	NE12
					Flowrate	< 120 kg/h								
					Pressure	0.4 MPa								
					Pipe size	up to and including 150 mm								
Liquid mass flow	Coriolis meters, differential producers	Gyroscopic balance / master meter	1	150E+03	kg/h	Liquid	water	0.02	%	2	95%	Yes	6" facility	NE12
					Flowrate	> 120 kg/h								
					Pressure	0.4 MPa								
					Pipe size	up to and including 150 mm								
Liquid volume flow	Turbine-, EMF-, vortex- and positive displacement meter	Gyroscopic balance / master meter	0.001	60	m³/h	Liquid	water	0.05	%	2	95%	Yes	3" facility	NE13
					Flowrate	< 0.12 m³/h								
					Pressure	0.4 MPa								
					Pipe size	up to and including 150 mm								
Liquid volume flow	Turbine-, EMF-, vortex- and positive displacement meter	Gyroscopic balance / master meter	0.001	60	m³/h	Liquid	water	0.02	%	2	95%	Yes	3" facility	NE13
					Flowrate	> 0.12 m³/h								
					Pressure	0.4 MPa								
					Pipe size	up to and including 150 mm								

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Liquid mass flow	Coriolis meters, Differential producers	Gyroscopic balance / master meter	1	60E+03	kg/h	Liquid	water	0.05	%	2	95%	Yes	3" facility	NE14
						Flowrate	< 120 kg/h							
						Pressure	0.4 MPa							
						Pipe size	up to and including 150 mm							
Liquid mass flow	Coriolis meters, Differential producers	Gyroscopic balance / master meter	1	60E+03	kg/h	Liquid	water	0.02	%	2	95%	Yes	3" facility	NE14
						Flowrate	> 120 kg/h							
						Pressure	0.4 MPa							
						Pipe size	up to and including 150 mm							
Liquid volume flow	Turbine-, vortex-, positive displacement, Coriolis- and US-meters	Filling fixed volume and mastermeter-method, using visual or pulsed output of DUT	0.001	180	m ³ /h	Liquid	kerosene / jet fuel	0.04	%	2	95%	Yes		NE15
						Pressure	0.4 MPa							
						Density	800 kg/m ³							
						Viscosity	1.8 mm ² /s at 15 °C							
						Pipe size	up to and including 150 mm							

Calibration and Measurement Capabilities

Calibration or Measurement Service			Measurand Level or Range			Measurement Conditions/Independent Variable		Expanded Uncertainty						
Class	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage Factor	Level of Confidence	Is the expanded uncertainty a relative one?	Comments	NMI Service Identifier
Liquid mass flow	Turbine-, vortex-, positive displacement, Coriolis- and US-meters	Filling fixed volume and mastermeter-method, using visual or pulsed output of DuT	1	145E+03	kg/h	Liquid	kerosene / jet fuel	0.05	%	2	95%	Yes		NE16
						Pressure	0.4 MPa							
						Density	800 kg/m ³							
						Viscosity	1.8 mm ² /s at 15 °C							
						Pipe size	up to and including 150 mm							
Liquid volume flow	Turbine-, vortex-, positive displacement, Coriolis- and US-meters	Filling fixed volume and mastermeter-method, using visual or pulsed output of DuT	0.05	250	m ³ /h	Liquid	petrol / gasoline	0.04	%	2	95%	Yes		NE17
						Pressure	0.4 MPa							
						Density	710 kg/m ³							
						Viscosity	0.7 mm ² /s at 15 °C							
						Pipe size	most sizes up to and including 150 mm							

Calibration and Measurement Capabilities

Calibration or Measurement Service			Measurand Level or Range			Measurement Conditions/Independent Variable		Expanded Uncertainty						
Class	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage Factor	Level of Confidence	Is the expanded uncertainty a relative one?	Comments	NMI Service Identifier
Liquid mass flow	Turbine-, vortex-, positive displacement, Coriolis- and US-meters	Filling fixed volume and mastermeter-method, using visual or pulsed output of DuT	35	175E+03	kg/h	Liquid	petrol / gasoline	0.05	%	2	95%	Yes		NE18
						Pressure	0.4 MPa							
						Density	710 kg/m ³							
						Viscosity	0.7 mm ² /s at 15 °C							
						Pipe size	up to and including 150 mm							
Liquid volume flow	Turbine-, vortex-, positive displacement, Coriolis- and US-meters	Filling fixed volume and mastermeter-method, using visual or pulsed output of DuT	0.001	250	m ³ /h	Liquid	diesel / gasoil	0.04	%	2	95%	Yes		NE19
						Pressure	0.4 MPa							
						Density	845 kg/m ³							
						Viscosity	5 mm ² /s at 15 °C							
						Pipe size	up to and including 150 mm							

Calibration and Measurement Capabilities

Calibration or Measurement Service			Measurand Level or Range			Measurement Conditions/Independent Variable		Expanded Uncertainty					Comments	NMI Service Identifier
Class	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage Factor	Level of Confidence	Is the expanded uncertainty a relative one?		
Liquid mass flow	Turbine-, vortex-, positive displacement, Coriolis- and US-meters	Filling fixed volume and mastermeter-method, using visual or pulsed output of DuT	1	210E+03	kg/h	Liquid	diesel / gasoil	0.05	%	2	95%	Yes		NE20
						Pressure	0.4 MPa							
						Density	845 kg/m ³							
						Viscosity	5 mm ² /s at 15 °C							
						Pipe size	up to and including 150 mm							
Liquid static volume	Glassware, vessels, burettes, pipettes	Gravimetric and volumetric	0.01	25	l	Liquid	water and fuels	0.02 to 0.01	%	2	95%	Yes		NE21
Liquid static volume	Glassware, vessels, burettes, pipettes	Gravimetric and volumetric	0.5	6000	l	Liquid	water and fuels	0.02	%	2	95%	Yes		NE22
Liquids mass	Hydrometer	Hydrometer	600	1500	kg/m ³	Liquid	density 1	0.01	%	2	95%	Yes		NE23
Liquids volume	Liquids	Liquids	600	1000	kg/m ³	Liquid	density 2	0.02	%	2	95%	Yes		NE24